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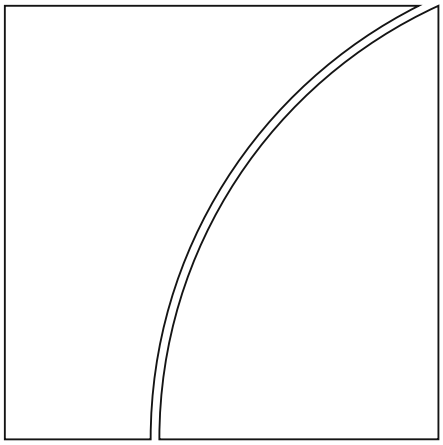

# Margin requirements for non-centrally cleared derivatives

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## Abbreviations

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| BCBS | Basel Committee on Banking Supervision |
| BIS | Bank for International Settlements |
| CCP | Central counterparty |
| CGFS | Committee on the Global Financial System |
| CPSS | Committee on Payment and Settlement Systems |
| FSB | Financial Stability Board |
| FX | Foreign exchange |
| G20 | The Group of Twenty |
| G-SIFI | Global systemically important financial institution |
| IOSCO | International Organization of Securities Commissions |
| LCR | Liquidity coverage ratio |
| MTA | Minimum transfer amount |
| NSFR | Net stable funding ratio |
| OTC | Over-the-counter |
| PSE | Public Sector Entity |
| QIS | Quantitative impact study |
| WGMR | Working Group on Margining Requirements |

# Part A: Executive summary

This document presents the final policy framework that establishes minimum standards for margin requirements for non-centrally cleared derivatives as agreed by the Basel Committee on Banking Supervision (BCBS) and the International Organization of Securities Commissions (IOSCO).[1] This final framework was developed in consultation with the Committee on Payment and Settlement Systems (CPSS) and the Committee on the Global Financial System (CGFS).

## Background

The economic and financial crisis that began in 2007 exposed significant weaknesses in the resiliency of banks and other market participants to financial and economic shocks. In the context of over-the-counter (OTC) derivatives in particular, the recent financial crisis demonstrated that improved transparency in the OTC derivatives markets and further regulation of OTC derivatives and market participants would be necessary to limit excessive and opaque risk-taking through OTC derivatives and to mitigate the systemic risk posed by OTC derivatives transactions, markets, and practices.

In response, the Group of Twenty (G20) initiated a reform programme in 2009 to reduce the systemic risk from OTC derivatives. As initially agreed in 2009, the G20's reform programme comprised four elements:

- All standardised OTC derivatives should be traded on exchanges or electronic platforms, where appropriate.
- All standardised OTC derivatives should be cleared through central counterparties (CCPs).
- OTC derivatives contracts should be reported to trade repositories.
- Non-centrally cleared derivatives contracts should be subject to higher capital requirements.[2]

In 2011, the G20 agreed to add margin requirements on non-centrally cleared derivatives to the reform programme and called upon the BCBS and IOSCO to develop, for consultation, consistent global standards for these margin requirements.[3] To this end, the BCBS and IOSCO, in consultation with the CPSS and CGFS, formed the Working Group on Margining Requirements (WGMR) in October 2011 to develop a proposal on margin requirements for non-centrally cleared derivatives for consultation by mid-2012.

In July 2012, an initial proposal was released for consultation. The initial proposal was followed by an invitation to comment on the proposal by 28 September 2012. Additionally, a quantitative impact study (QIS) was conducted to assess the potential liquidity and other quantitative impacts associated with mandatory margining requirements.

[1] Throughout this paper, the term "non-centrally cleared derivatives" is used as shorthand to refer to derivatives that are not cleared through a central counterparty.

[2] G20, *Pittsburgh summit declaration*, www.g20.utoronto.ca/2009/2009communique0925.html.

[3] G20, *Cannes summit final declaration*, www.g20civil.com/documents/Cannes_Declaration_4_November_2011.pdf.

In February 2013, the BCBS and IOSCO released a second consultative document that reflected the near-final policy framework after careful consideration of the responses to the first consultative document as well as the QIS results. The consultative document sought comment on four questions relating to certain specific aspects of the near-final margin framework.

A large number of comments were received on the near-final margin framework. These comments have been considered in updating the proposal and specifying a final global framework for margining requirements on non-centrally cleared derivatives.

The following document lays out the key objectives, elements and principles of the final margining framework for non-centrally cleared derivatives.

## Objectives of margin requirements for non-centrally cleared derivatives

Margin requirements for non-centrally cleared derivatives have two main benefits:

**Reduction of systemic risk**. Only standardised derivatives are suitable for central clearing. A substantial fraction of derivatives are not standardised and cannot be centrally cleared.[4] These non-centrally cleared derivatives, totalling hundreds of trillions of dollars in notional amounts,[5] pose the same type of systemic contagion and spillover risks that materialised in the recent financial crisis. Margin requirements for non-centrally cleared derivatives would be expected to reduce contagion and spillover effects by ensuring that collateral is available to offset losses caused by the default of a derivatives counterparty. Margin requirements can also have broader macroprudential benefits, by reducing the financial system's vulnerability to potentially destabilising procyclicality and limiting the build-up of uncollateralised exposures within the financial system.

**Promotion of central clearing**. In many jurisdictions, central clearing will be mandatory for most standardised derivatives. But clearing imposes costs, in part because CCPs require margin to be posted. Margin requirements on non-centrally cleared derivatives, by reflecting the generally higher risk associated with these derivatives, will promote central clearing, making the G20's original 2009 reform programme more effective. This could, in turn, contribute to the reduction of systemic risk.

The effectiveness of margin requirements could be undermined if the requirements were not consistent internationally. Activity could move to locations with lower margin requirements, raising two concerns:

- The effectiveness of the margin requirements could be undermined (ie regulatory arbitrage).
- Financial institutions that operate in the low-margin locations could gain a competitive advantage (ie unlevel playing field).

[4] IMF (*Global Financial Stability Report*, April 2010, Chapter 3) assumes that one quarter of interest rate swaps, one third of credit default swaps, and two thirds of other OTC derivatives will not be sufficiently standardised and liquid to be centrally cleared.

[5] A recent BIS survey (*Semiannual OTC derivatives statistics at end-June 2012*) shows that notional amount outstanding for OTC derivatives totalled USD 639 trillion in June 2012.

## Margin and capital

Both capital and margin perform important and complementary risk mitigation functions but are distinct in a number of ways. First, margin is "defaulter-pay". In the event of a counterparty default, margin protects the surviving party by absorbing losses using the collateral provided by the defaulting entity. In contrast, while capital adds loss absorbency to the system, because it is "survivor-pay", using capital to meet such losses consumes the surviving entity's own financial resources. The shift towards greater reliance on margin will have a useful influence on incentives. Greater reliance on margin will help market participants to better internalise the cost of their risk-taking, because they will have to post collateral when they enter into a derivatives contract. It will also promote resilient markets in times of stress, when a market participant who has not received margin could be under pressure to withdraw from trading to preserve its capital.

Second, margin is more "targeted" and dynamic, with each portfolio having its own designated margin for absorbing the potential losses in relation to that particular portfolio, and with such margin being adjusted over time to reflect changes in that portfolio's risk. In contrast, capital is shared collectively by all the entity's activities and may thus be more easily depleted at a time of stress. It is also difficult to rapidly adjust capital in response to changing risk exposures. Capital requirements against each exposure are not designed to cover the loss on the default of the counterparty but rather the probability-weighted loss given such default. For these reasons, margin can be seen as offering enhanced protection against counterparty credit risk provided that it is effectively implemented. In order for margin to act as an effective risk mitigant, it must be (i) accessible when needed and (ii) provided in a form that can be liquidated rapidly and at a predictable price even in a time of financial stress.

## Impact of margin requirements on liquidity

The potential benefits of margin requirements must be weighed against the liquidity impact that would result from derivatives counterparties' need to provide liquid high-quality collateral to meet those requirements, including potential changes to market functioning as a result of an increased aggregate demand for such collateral. Financial institutions may need to obtain and deploy additional liquidity resources to meet margin requirements that exceed current practice. Moreover, the liquidity impact of margin requirements cannot be considered in isolation. Rather, it is important to recognise ongoing and parallel regulatory initiatives that will also have significant liquidity impacts; examples of such initiatives include the BCBS's Liquidity Coverage Ratio (LCR), Net Stable Funding Ratio (NSFR) and global mandates for central clearing of standardised derivatives.

The BCBS and IOSCO conducted a QIS in order to gauge the impact of the margin proposals. In particular, the QIS assessed the amount of margin required on non-centrally cleared derivatives as well as the amount of available collateral that could be used to satisfy these requirements.

The results of the QIS, as well as comments that were received on the initial proposal and near-final framework, were carefully considered in arriving at the margin framework that is described in this document. The overall liquidity burden resulting from initial margin requirements, as well as the availability of eligible collateral to satisfy such requirements, has been carefully assessed in designing the margin framework. The use of permitted initial margin thresholds, which are discussed in detail in Element 2, the eligibility of a broad range of eligible collateral, which is discussed in detail in Element 4, the ability to re-hypothecate some initial margin collateral under strict conditions, which is discussed in Element 5, as well as the triggers that provide for a gradual phase-in of the requirements, which are discussed in detail in Element 8, have been included as key elements of the margin framework to directly address the liquidity demands associated with the requirements.

## Key principles and requirements

As described in more detail in Part B, this paper presents the BCBS's and IOSCO's final policy for margin requirements for non-centrally cleared derivatives, as articulated through key principles addressing eight main elements:

1. Appropriate margining practices should be in place with respect to all derivatives transactions that are not cleared by CCPs.
2. All financial firms and systemically important non-financial entities ("covered entities") that engage in non-centrally cleared derivatives must exchange initial and variation margin as appropriate to the counterparty risks posed by such transactions.
3. The methodologies for calculating initial and variation margin that serve as the baseline for margin collected from a counterparty should (i) be consistent across entities covered by the requirements and reflect the potential future exposure (initial margin) and current exposure (variation margin) associated with the portfolio of non-centrally cleared derivatives in question and (ii) ensure that all counterparty risk exposures are fully covered with a high degree of confidence.
4. To ensure that assets collected as collateral for initial and variation margin purposes can be liquidated in a reasonable amount of time to generate proceeds that could sufficiently protect collecting entities covered by the requirements from losses on non-centrally cleared derivatives in the event of a counterparty default, these assets should be highly liquid and should, after accounting for an appropriate haircut, be able to hold their value in a time of financial stress.
5. Initial margin should be exchanged by both parties, without netting of amounts collected by each party (ie on a gross basis), and held in such a way as to ensure that (i) the margin collected is immediately available to the collecting party in the event of the counterparty's default; and (ii) the collected margin must be subject to arrangements that fully protect the posting party to the extent possible under applicable law in the event that the collecting party enters bankruptcy.
6. Transactions between a firm and its affiliates should be subject to appropriate regulation in a manner consistent with each jurisdiction's legal and regulatory framework.
7. Regulatory regimes should interact so as to result in sufficiently consistent and non-duplicative regulatory margin requirements for non-centrally cleared derivatives across jurisdictions.
8. Margin requirements should be phased in over an appropriate period of time to ensure that the transition costs associated with the new framework can be appropriately managed. Regulators should undertake a coordinated review of the margin standards once the requirements are in place and functioning to assess the overall efficacy of the standards and to ensure harmonisation across national jurisdictions as well as across related regulatory initiatives.

## Monitoring and evaluation

The actual impact of margin requirements is subject to various factors and uncertainties, including, among others, the ratio of cleared to non-centrally cleared derivatives and changes in market volatility over time. Moreover, a number of the framework's design elements could have impacts that may change over time depending on changes in market structure and market conditions.

The BCBS and IOSCO will set up a monitoring group to evaluate these margin standards in 2014. The evaluation will focus on the relation and consistency of the margin standards with related regulatory initiatives such as changes to standardised approaches for trading book and counterparty credit risk capital, potential minimum haircuts on repurchase and reverse repurchase transactions,

implementation of the LCR, and capital requirements on centrally cleared derivatives that may develop alongside these requirements between now and 2014.

The monitoring group will consider any initiatives to conduct further analysis of the costs and benefits, and of the impact on competition for rules setting margin requirements for non-centrally cleared derivatives. It will consider the overall efficacy and appropriateness of the margin methodologies and standards. It will explore the possible alignment of the model and standardised schedule approaches for calculating initial margin, and assess the potential procyclicality of the margin requirements.

The monitoring group will consider the results of various studies that are being conducted, such as the study being conducted by the Bank for International Settlements Macroeconomic Assessment Group on Derivatives on the macroeconomic impact of OTC derivatives market reforms and the OTC Derivatives Assessment Team's assessment of incentives for central clearing, and will further monitor and evaluate the liquidity impact of these margin requirements on different types of covered entities. Where appropriate, the monitoring group will conduct a quantitative study to assess the impact of the margin framework or certain specific aspects of the margin framework.

The monitoring group will consider providing more guidance on the validation and backtesting of models for margining. It will also evaluate the risks of not subjecting the fixed physically settled foreign exchange (FX) transactions associated with the exchange of principal of cross-currency swaps to the initial margin requirements, and consider whether any modifications to such arrangement are appropriate.

The monitoring group will consider developments in the effort to establish a global framework for cross-border interactions across an array of regulatory initiatives including margin. These developments will be reviewed to ensure that the interactions between differing jurisdictions in the context of margin requirements are compatible with the goals of this framework.

Finally, the monitoring group will gather data relevant to the extent to which collateral is re-hypothecated under the limited re-hypothecation conditions identified in Element 5, where and how such collateral is held, any implementation issues and the benefits and risks of such re-hypothecation, in order to formulate recommendations to BCBS and IOSCO on whether to continue to permit re-hypothecation of collateral under these conditions, permit re-hypothecation for only a subset of non-centrally cleared derivatives products, prohibit re-hypothecation altogether, or whether to otherwise modify the conditions.

Certain elements of the margin standards may need to be re-evaluated or modified if forthcoming additional data and further analyses reveal that the incentives and impacts of them substantially deviate from the results reflected in the QIS, or are inconsistent with the goals expressed in this framework, or do not effectively balance the costs and benefits of the requirements. Based on the findings of the monitoring group, the BCBS and IOSCO will jointly determine whether any additional work needs to be undertaken or whether any modifications to the margin requirements are necessary or appropriate. This monitoring and evaluation process is not intended to deter individual regulatory authorities from proceeding with rules pertaining to margin requirements for non-centrally cleared derivatives consistent with this paper while the monitoring group is conducting its work.

The BCBS and IOSCO will also continue working to monitor and assess how consistently the requirements are implemented across products, jurisdictions and market participants.

# Part B: Key principles and requirements

## Element 1: Scope of coverage – instruments subject to the requirements

### Background discussion

1(a) A primary threshold question that must be addressed in the design of margin requirements for non-centrally cleared derivatives is the scope of derivatives instruments to which the requirements will apply. Consistent with the G20 mandate, the BCBS and IOSCO have focused their attention on all derivatives that are not cleared by a CCP, regardless of type. At the same time, some consideration has been given to whether certain types of transactions (eg FX forwards and swaps) may merit exclusion from the scope of the margin requirements because of their unique characteristics or particular market practices.

### Key principle 1

Appropriate margining practices should be in place with respect to all derivatives transactions that are not cleared by CCPs.[6]

### Requirement 1

1.1 Except for physically settled FX forwards and swaps, the margin requirements apply to all non-centrally cleared derivatives. The margin requirements described in this paper do not apply to physically settled FX forwards and swaps. However, the BCBS and IOSCO recognise that variation margining of such derivatives is a common and established practice among significant market participants. The BCBS and IOSCO recognise that the exchange of variation margin is a prudent risk management tool that limits the build-up of systemic risk. Accordingly, the BCBS and IOSCO agree that standards apply for variation margin to be exchanged on physically settled FX forwards and swaps in a manner consistent with the final policy framework set out in this document and that those variation margin standards are implemented either by way of supervisory guidance or national regulation. The BCBS and IOSCO note that the BCBS has updated the supervisory guidance for managing settlement risk in FX transactions.[7] The update to the supervisory guidance covers margin requirements for physically settled FX forwards and swaps. In developing variation margin standards for physically settled FX forwards and swaps, national supervisors should consider the recommendations in the BCBS supervisory guidance.

1.2 Initial margin requirements for cross-currency swaps do not apply to the fixed physically settled FX transactions associated with the exchange of principal of cross-currency swaps. In practice, the

[6] These margining practices only apply to derivatives transactions that are not cleared by CCPs and do not apply to other transactions, such as repurchase agreements and security lending transactions that are not themselves derivatives but share some attributes with derivatives. In addition, indirectly cleared derivatives transactions that are intermediated through a clearing member on behalf of a non-member customer are not subject to these requirements as long as (a) the non-member customer is subject to the margin requirements of the clearing house or (b) the non-member customer provides margin consistent with the relevant corresponding clearing house's margin requirements.

[7] The BCBS has issued supervisory guidance for managing risks associated with the settlement of FX transactions: www.bis.org/publ/bcbs241.htm.

margin requirements for cross-currency swaps may be computed in one of two ways. Initial margin may be computed by reference to the "interest rate" portion of the standardised initial margin schedule that is discussed below and presented in the appendix. Alternatively, if initial margin is being calculated pursuant to an approved initial margin model, the initial margin model need not incorporate the risk associated with the fixed physically settled FX transactions associated with the exchange of principal. All other risks that affect cross-currency swaps, however, must be considered in the calculation of the initial margin amount.[8] Finally, the variation margin requirements that are described below apply to all components of cross-currency swaps.

## Element 2: Scope of coverage – scope of applicability

### Background discussion

2(a) Another important element of the margin requirements is their general scope of applicability – that is, to which firms do the requirements apply, and what do the requirements oblige those firms to do. In particular, the scope of the margin requirements' applicability has an important effect on each of the following:

- The extent to which the requirements reduce systemic risk – here the BCBS and IOSCO have considered the extent to which potential approaches would capture all or substantially all systemic risk arising from non-centrally cleared derivatives, the risk of which is generally concentrated among the activities of the largest key market participants transacting in a significant amount of non-centrally cleared derivatives (eg through dealing or other activities), subject to certain exceptions in specific asset classes, such as commodities;
- The extent to which the requirements promote central clearing – here the BCBS and IOSCO have considered the extent to which potential approaches would parallel the central clearing mandate, which generally applies to all financial institutions and those non-financial institutions that pose significant systemic risk; and
- The liquidity impact of the requirements – here the BCBS and IOSCO have considered the fact that increased scope of applicability would entail a correspondingly greater liquidity impact.

2(b) In evaluating this fundamental element of the margin requirements and its implications with respect to systemic risk reduction, incentives relative to central clearing and impact on liquidity, the BCBS and IOSCO have focused on two principal questions:

- Whether the margin requirements should apply to all parties to non-centrally cleared derivatives, only to financial firms, or only to key market participants; and
- Whether the margin requirements should require a bilateral exchange of margin between all entities covered by the requirements, or only the unilateral collection of margin by certain types of firms (eg key market participants).

2(c) The BCBS and IOSCO believe that the margin requirements need not apply to non-centrally cleared derivatives to which non-financial entities that are not systemically important are a party, given

[8] In the interest of clarity, the only payments to be excluded from initial margin requirements for a cross-currency swap are the fixed physically settled FX transactions associated with the exchange of principal (which have the same characteristics as FX forward contracts). All other payments or cash flows that occur during the life of the swap must be subject to initial margin requirements.

that (i) such transactions are viewed as posing little or no systemic risk and (ii) such transactions are exempted from central clearing mandates under most national regimes. Similarly, the BCBS and IOSCO advocate that margin requirements are not applied in such a way that would require sovereigns, central banks, multilateral development banks (MDBs) or the Bank for International Settlements to either collect or post margin. Both of these views are reflected in the exclusion of such transactions from the scope of margin requirements. As a result, a transaction between a covered entity and one of the aforementioned entities is not covered by the requirements set out in this document.

2(d) With respect to other non-centrally cleared derivatives; the BCBS and IOSCO support margin requirements that, in principle, would involve the mandatory exchange of both initial and variation margin among parties to non-centrally cleared derivatives ("universal two-way margin").

2(e) In the case of variation margin, the BCBS and IOSCO recognise that the regular and timely exchange of variation margin represents the settlement of the running profit/loss of a derivative and has no net liquidity costs given that variation margin represents a transfer of resources from one party to another. The BCBS and IOSCO also recognise that the regular and timely exchange of variation margin is a widely adopted best practice that promotes effective and sound risk management.

2(f) In the case of initial margin, the BCBS and IOSCO recognise that initial margin requirements will have a measurable impact on market liquidity, as assets that are provided for collateral purposes cannot be readily deployed for other uses over the life of the non-centrally cleared derivatives contract. It is also recognised that such requirements will represent a significant change in market practice and will present certain operational and logistical challenges that will need to be managed as the new requirements come into effect.

2(g) These operational and logistical challenges will be dealt with as the requirements are implemented in a manner consistent with the phase-in timeline described earlier and discussed in detail under Element 8. Following the end of the phase-in period, there will be a minimum level of non-centrally cleared OTC derivatives activity (€8 billion in gross notional outstanding amounts) necessary for covered entities to be subject to initial margin requirements described in this paper.

2(h) One method for managing the liquidity impact associated with initial margin requirements – and one that has received broad support – is to provide for an initial margin threshold (threshold) that would specify an amount under which a firm would have the option of not collecting initial margin. In cases where the initial margin requirement for the portfolio exceeded the threshold, the firm would be obliged to collect initial margin from its counterparty in an amount that is at least as large as the difference between the initial margin requirement and the threshold. For example, if the threshold amount were 10 and the initial margin requirement for a particular non-centrally cleared derivatives portfolio was 15, then a firm would be obliged to collect at least 5 from its counterparty in initial margin (15–10=5), or more if it so chose pursuant to its risk management guidelines and principles. Such an approach, if applied in a manner consistent with sound risk management practices, could help ameliorate the costs associated with a universal two-way margin regime.

## Key principle 2

All covered entities (ie financial firms and systemically important non-financial entities) that engage in non-centrally cleared derivatives must exchange initial and variation margin as appropriate to the counterparty risks posed by such transactions.[9]

## Requirement 2

2.1 All covered entities that engage in non-centrally cleared derivatives must exchange, on a bilateral basis, the full amount of variation margin (ie a zero threshold) on a regular basis (eg daily).

2.2 All covered entities must exchange, on a bilateral basis, initial margin with a threshold not to exceed €50 million. The threshold is applied at the level of the consolidated group to which the threshold is being extended and is based on all non-centrally cleared derivatives between the two consolidated groups.[10]

2.3 All margin transfers between parties may be subject to a de-minimis minimum transfer amount not to exceed €500,000.

2.4 Covered entities include all financial firms and systemically important non-financial firms. Central banks, sovereigns,[11] multilateral development banks, the Bank for International Settlements, and non-systemic, non-financial firms are not covered entities.[12]

2.5 Initial margin requirements will be phased-in, but at the end of the phase-in period there will be a minimum level of non-centrally cleared derivatives activity (€8 billion of gross notional outstanding amount) necessary for covered entities to be subject to initial margin requirements described in this paper.

2.6 The precise definition of financial firms, non-financial firms and systemically important non-financial firms will be determined by appropriate national regulation. Only non-centrally cleared derivatives transactions between two covered entities are governed by the requirements in this paper.

## Commentary

2(i) All covered entities engaging in non-centrally cleared derivatives must exchange initial and variation margin as appropriate to the counterparty risk posed by such transactions.

9 The BCBS and IOSCO note that different treatment is applied with respect to transactions between affiliated entities, as described under Element 6 below.

10 Investment funds that are managed by an investment advisor are considered distinct entities that are treated separately when applying the threshold as long as the funds are distinct legal entities that are not collateralised by or are otherwise guaranteed or supported by other investment funds or the investment advisor in the event of fund insolvency or bankruptcy.

11 Subject to national discretion, public sector entities (PSEs) may be treated as sovereigns for the purpose of determining the applicability of margin requirements. In considering whether a PSE should be treated as a sovereign for the purpose of determining the applicability of margin requirements, national supervisors should consider the counterparty credit risk of the PSE, as reflected by, for example, whether the PSE has revenue-raising powers and the extent of guarantees provided by the central government.

12 Multilateral development banks (MDBs) exempted from this requirement are those that are eligible for a zero risk-weight under the Basel capital framework (at the time this margin framework is published, see footnote 24 of paragraph 54, part 2, *Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework*, http://www.bis.org/publ/bcbs128b.pdf).

2(ii) The requirement that the threshold be applied on a consolidated group basis is intended to prevent the proliferation of affiliates and other legal entities within larger entities for the sole purpose of circumventing the margin requirements. The following example describes how the threshold would be applied by an entity that is facing three distinct legal entities within a larger consolidated group.

2(iii) Suppose that a firm engages in separate derivatives transactions, executed under separate legally enforceable netting agreements, with three counterparties, A1, A2, A3. A1, A2 and A3, all belong to the same larger consolidated group such as a bank holding company. Suppose further that the initial margin requirement (as described in Element 3) is €100 million for each of the firm's netting sets with A1, A2 and A3. Then the firm dealing with these three affiliates must collect at least €250 million (250=100+100+100–50) from the consolidated group. Exactly how the firm allocates the €50 million threshold among the three netting sets is subject to agreement between the firm and its counterparties. The firm may not extend a €50 million threshold to each netting set with, A1, A2, A3, so that the total amount of initial margin collected is only €150 million (150=100-50+100-50+100–50).

2(iv) Furthermore, the requirement to apply the threshold on a fully consolidated basis applies to both the counterparty to which the threshold is being extended and the counterparty that is extending the threshold. As a specific example, suppose that in the example above the firm (as referenced above) is itself organised into, say, three subsidiaries F1, F2 and F3 and that each of these subsidiaries engages in non-centrally cleared derivatives transactions with A1, A2 and A3. In this case, the extension of the €50 million threshold by the firm to A1, A2 and A3 is considered across the entirety of the firm, ie F1, F2, and F3, so that all subsidiaries of the firm extend in the aggregate no more than €50 million in an initial margin threshold to all of A1, A2 and A3.

2(v) The implementation of this approach requires appropriate cooperation between home and host supervisors. As the threshold is applied on a consolidated basis, only the home supervisor of the consolidated group will necessarily be able to verify that the group does not exceed this threshold with all of its counterparties. The host supervisors of subsidiaries of a group would not be able to assess whether the local subsidiaries under their responsibility comply with the threshold allocated by the group to each of its subsidiaries. Communication between the home consolidated supervisors and host supervisors is therefore necessary to ensure that the latter have access to information on the threshold allocated to the local subsidiary under their responsibility.

## Element 3: Baseline minimum amounts and methodologies for initial and variation margin

### Background discussion

3(a) A third key element of the margin requirements is the minimum baseline amount of initial and variation margin that would need to be collected for a non-centrally cleared derivatives and the methodologies by which that baseline amount would be calculated. The BCBS and IOSCO have evaluated the calculation of these baseline margin amounts by reference to the two underlying benefits of the margin requirements described in Part A – systemic risk reduction and promotion of central clearing. From the perspective of systemic risk reduction, the BCBS and IOSCO have considered the extent to which baseline margin amounts would be sufficient to offset any loss caused by the default of a counterparty with a high degree of confidence; this line of analysis involves calibrating baseline margin amounts relative to the current and potential exposure posed by particular derivatives transactions. From the perspective of promoting central clearing, the BCBS and IOSCO have considered the costs associated with complying with the baseline margin requirements; this line of analysis involves calibrating baseline margin amounts relative to the costs of executing the same or similar transactions on a centrally cleared

basis. This paper establishes a general framework for calculating baseline variation and initial margin that is intended to realise both benefits of margin requirements.

3(b) In terms of distinguishing baseline requirements for initial margin and variation margin, the BCBS and IOSCO have taken into account the differing form and purpose of each type of margin and their typical use in market practice.

3(c) Variation margin protects the transacting parties from the current exposure that has already been incurred by one of the parties from changes in the mark-to-market value of the contract after the transaction has been executed. The amount of variation margin reflects the size of this current exposure. It depends on the mark-to-market value of the derivatives at any point in time, and can therefore change over time.

3(d) Initial margin protects the transacting parties from the potential future exposure that could arise from future changes in the mark-to-market value of the contract during the time it takes to close out and replace the position in the event that one or more counterparties default. The amount of initial margin reflects the size of the potential future exposure. It depends on a variety of factors, including how often the contract is revalued and variation margin exchanged, the volatility of the underlying instrument, and the expected duration of the contract closeout and replacement period, and can change over time, particularly where it is calculated on a portfolio basis and transactions are added to or removed from the portfolio on a continuous basis.

## Key principle 3

The methodologies for calculating initial and variation margin that serve as the baseline for margin collected from a counterparty should (i) be consistent across entities covered by the requirements and reflect the potential future exposure (initial margin) and current exposure (variation margin) associated with the particular portfolio of non-centrally cleared derivatives at issue and (ii) ensure that all counterparty risk exposures are covered fully with a high degree of confidence.

## Requirement 3 – Initial margin

3.1 For the purpose of informing the initial margin baseline, the potential future exposure of a non-centrally cleared derivatives should reflect an extreme but plausible estimate of an increase in the value of the instrument that is consistent with a one-tailed 99 per cent confidence interval over a 10-day horizon,[13] based on historical data that incorporates a period of significant financial stress.[14] The initial margin amount must be calibrated to a period that includes financial stress to ensure that sufficient margin will be available when it is most needed and to limit the extent to which the margin can be procyclical. The required amount of initial margin may be calculated by reference to either (i) a quantitative portfolio margin model or (ii) a standardised margin schedule. When initial margin is calculated by reference to an initial margin model, the period of financial stress used for calibration should be identified and applied separately for each broad asset class for which portfolio margining is

[13] The 10-day requirement should apply in the case that variation margin is exchanged daily. If variation margin is exchanged at less than daily frequency then the minimum horizon should be set equal to 10 days plus the number of days in between variation margin exchanges; the threshold calculation set out in paragraph 2.2 should nonetheless be made irrespective of the frequency with which variation margin is exchanged.

[14] Because of the discrete subset of transactions covered by the margin requirements, these assumptions differ somewhat from the assumptions used to calculate potential future exposure under the Basel regulatory capital framework for OTC derivatives.

allowed, as set out below. In addition, the identified period must include a period of financial stress and should cover a historical period not to exceed five years. Additionally, the data within the identified period should be equally weighted for calibration purposes.

3.2 Non-centrally cleared derivatives will often be exposed to a number of complex and interrelated risks. Internal or third-party quantitative models that assess these risks in a granular form can be useful for ensuring that the relevant initial margin amounts are calculated in an appropriately risk-sensitive manner. Moreover, current practice among a number of large and active CCPs is to use internal quantitative models when determining initial margin amounts.

3.3 Notwithstanding the utility of quantitative models, the use of such models is predicated on the satisfaction of several prerequisite conditions. First, any quantitative model that is used for initial margin purposes must be approved by the relevant supervisory authority. Models that have not been granted explicit approval may not be used for initial margin purposes. Models may be either internally developed or sourced from the counterparties or third-party vendors but in all such cases these models must be approved by the appropriate supervisory authority. Moreover, in the event that a third party-provided model is used for initial margin purposes, the model must be approved for use within each jurisdiction and by each institution seeking to use the model. Similarly, an unregulated counterparty that wishes to use a quantitative model for initial margin purposes may use an approved initial margin model. There will be no presumption that approval by one supervisor in the case of one or more institutions will imply approval for a wider set of jurisdictions and/or institutions. Second, quantitative initial margin models must be subject to an internal governance process that continuously assesses the value of the model's risk assessments, tests the model's assessments against realised data and experience, and validates the applicability of the model to the derivatives for which it is being used. The process must take into account the complexity of the products covered (eg barrier options and other more complex structures). These additional requirements are intended to ensure that the use of models does not lead to a lowering of margin standards. The use of models is also not intended to lower margin standards that may already exist in the context of some non-centrally cleared derivatives. Rather, the use of models is intended to produce appropriately risk-sensitive assessments of potential future exposure so as to promote robust margin requirements.

3.4 Quantitative initial margin models may account for risk on a portfolio basis. More specifically, the initial margin model may consider all of the derivatives that are approved for model use that are subject to a single legally enforceable netting agreement. Derivatives between counterparties that are not subject to the same legally enforceable netting agreement must not be considered in the same initial margin model calculation. Derivative portfolios are often exposed to a number of offsetting risks that can and should be reliably quantified for the purposes of calculating initial margin requirements. At the same time, a distinction must be made between offsetting risks that can be reliably quantified and those that are more difficult to quantify. In particular, inter-relationships between derivatives in distinct asset classes, such as equities and commodities, are difficult to model and validate. Moreover, this type of relationship is prone to instability and may be more likely to break down in a period of financial stress. Accordingly, initial margin models may account for diversification, hedging and risk offsets **within** well defined asset classes such as currency/rates,[15,16] equity, credit, or commodities, but not **across** such asset classes and provided these instruments are covered by the same legally enforceable netting agreement.

[15] Currency and interest rate derivatives may be portfolio margined together for the purposes of these requirements. As an example, an interest rate swap and a currency option may be margined on a portfolio basis as part of a single asset class.

[16] Inflation swaps, which transfer inflation risk between counterparties, may be considered as part of the currency/rates asset class for the purpose of computing model-based initial margin requirements, and as part of the interest rate asset class for the purposes of computing standardised initial margin requirements.

However, any such incorporation of diversification, hedging and risk offsets by an initial margin model will require approval by the relevant supervisory authority. Initial margin calculations for derivatives in distinct asset classes must be performed without regard to derivatives in other asset classes. As a specific example, for a derivatives portfolio consisting of a single credit derivative and a single commodity derivative, an initial margin calculation that uses an internal model would proceed by first calculating the initial margin requirement on the credit derivatives and then calculating the initial margin requirement on the commodity derivative. The total initial margin requirement for the portfolio would be the sum of the two individual initial margin amounts because they are in two different asset classes (commodities and credit). Finally, derivatives for which a firm faces no (ie zero) counterparty risk require no initial margin to be collected and may be excluded from the initial margin calculation.

3.5 While quantitative, portfolio-based initial margin models can be a good risk management tool if monitored and governed appropriately; there are some instances in which a simpler and less risk-sensitive approach to initial margin calculations may be warranted. In particular, smaller market participants may not wish or may be unable to develop and maintain a quantitative model and may be unwilling to rely on a counterparty's model. In addition, some market participants may value simplicity and transparency in initial margin calculations, without resorting to a complex quantitative model. Further, an appropriately conservative alternative for calculating initial margin is needed in the event that no approved initial margin model exists to cover a specific transaction. Accordingly, the BCBS and IOSCO have provided an initial margin schedule, included as Appendix A, which may be used to compute the amount of initial margin required on a set of derivatives transactions.

3.6 The required initial margin will be computed by referencing the standardised margin rates in Appendix A and by adjusting the gross initial margin amount by an amount that relates to the net-to-gross ratio (NGR) pertaining to all derivatives in the legally enforceable netting set. The use of the net-to-gross ratio is an accepted practice in the context of bank capital regulation and recognises important offsets that would not be recognised by strict application of a standardised margin schedule.[17] The required initial margin amount would be calculated in two steps. First, the margin rate in the provided schedule would be multiplied by the gross notional size of the derivatives contract, and then this calculation would be repeated for each derivatives contract.[18] This amount may be referred to as the gross standardised initial margin. Second, the gross initial margin amount is adjusted by the ratio of the net current replacement cost to gross current replacement cost (NGR). This is expressed through the following formula:

*Net standardised initial margin = 0.4 * Gross initial margin + 0.6 * NGR * Gross initial margin*

where NGR is defined as the level of net replacement cost over the level of gross replacement cost for transactions subject to legally enforceable netting agreements. The total amount of initial margin

[17] The use of the net-to-gross ratio (NGR) in bank capital requirements can be found in Annex IV of the Basel capital framework, paragraph 969(iv), Part 5, *Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework*, www.bis.org/publ/bcbs128d.pdf. The Basel Committee has recently published a consultative document "The non-internal model method for capitalising counterparty credit risk exposures" that considers the use of the NGR in detail, http://www.bis.org/publ/bcbs254.htm. Any development of alternative frameworks for recognising hedges and offsets in the context of counterparty credit risk by the Basel Committee will be considered in the monitoring and evaluation period described earlier.

[18] Subject to approval by the relevant supervisory authority, a limited degree of netting may be performed at the level of a specific derivatives contract to compute the notional amount that is applied to the margin rate. As an example, one pay-fixed-interest-rate swap with a maturity of three years and a notional of 100 could be netted against another pay-floating-interest-rate swap with a maturity of three years and a notional of 50 to arrive at a single notional of 50 to which the appropriate margin rate would be applied. Derivatives with different fundamental characteristics such as underlying, maturity and so forth may not be netted against each other for the purpose of computing the notional amount against which the standardised margin rate is applied.

required on a portfolio according to the standardised margin schedule would be the net standardised initial margin amount. However, if a regulated entity is already using a schedule-based margin to satisfy requirements under its required capital regime, the appropriate supervisory authority may permit the use of the same schedule for initial margin purposes, provided that it is at least as conservative.

3.7 As in the case where firms use quantitative models to calculate initial margin, derivatives for which a firm faces no (ie zero) counterparty risk require no initial margin to be collected and may be excluded from the standardised initial margin calculation.

3.8 Derivatives market participants should not be allowed to switch between model- and schedule-based margin calculations in an effort to "cherry pick" the most favourable initial margin terms. Accordingly, the choice between model- and schedule-based initial margin calculations should be made consistently over time for all transactions within the same well defined asset class and, if applicable, it should comply with any other requirements imposed by the entity's supervisory authority.

3.9 At the same time, it is quite possible that a market participant may use a model-based initial margin calculation for one class of derivatives in which it commonly deals and a schedule-based initial margin in the case of some derivatives that are less routinely employed in its trading activities. A firm need not restrict itself to a model-based approach or to a schedule-based approach for the entirety of its derivatives activities. Rather, this requirement is meant to ensure that market participants do not use model-based margin calculations in those instances in which such calculations are more favourable than schedule-based requirements and schedule-based margin calculations when those requirements are more favourable than model-based margin requirements.

3.10 Initial margin should be collected at the outset of a transaction, and collected thereafter on a routine and consistent basis upon changes in measured potential future exposure, such as when trades are added to or subtracted from the portfolio. To mitigate procyclicality impacts, large discrete calls for (additional) initial margin due to "cliff-edge" triggers should be discouraged.

3.11 The build-up of additional initial margin should be gradual so that it can be managed over time. Moreover, margin levels should be sufficiently conservative, even during periods of low market volatility, to avoid procyclicality. The specific requirement that initial margin be set consistent with a period that includes stress is meant to limit procyclical changes in the amount of initial margin required.

3.12 Parties to derivatives contracts should have rigorous and robust dispute resolution procedures in place with their counterparty before the onset of a transaction. In particular, the amount of initial margin to be collected from one party by another will be the result of either an approved model calculation or the standardised schedule. The specific method and parameters that will be used by each party to calculate initial margin should be agreed and recorded at the onset of the transaction to reduce potential disputes. Moreover, parties may agree to use a single model for the purposes of such margin model calculations subject to bilateral agreement and appropriate regulatory approval. In the event that a margin dispute arises, both parties should make all necessary and appropriate efforts, including timely initiation of dispute resolution protocols, to resolve the dispute and exchange the required amount of initial margin in a timely fashion.

## Requirement 3 – Variation margin

3.13 For variation margin, the full amount necessary to fully collateralise the mark-to-market exposure of the non-centrally cleared derivatives must be exchanged.

3.14 To reduce adverse liquidity shocks and in order to effectively mitigate counterparty credit risk, variation margin should be calculated and exchanged for non-centrally cleared derivatives subject to a single, legally enforceable netting agreement with sufficient frequency (eg daily).

3.15 The valuation of a derivative's current exposure can be complex and, at times, become subject to question or dispute by one or both parties. In the case of non-centrally cleared derivatives, these

instruments are likely to be relatively illiquid. The associated lack of price transparency further complicates the process of agreeing on current exposure amounts for variation margin purposes. Accordingly, parties to derivatives contracts should have rigorous and robust dispute resolution procedures in place with their counterparty before the onset of a transaction. In the event that a margin dispute arises, both parties should make all necessary and appropriate efforts, including timely initiation of dispute resolution protocols, to resolve the dispute and exchange the required amount of variation margin in a timely fashion.

## Commentary

3(i) The existence of both a model-based and schedule-based initial margin standard allows derivative users to opt for either approach. Derivatives market participants should be able to choose between a more risk-sensitive but potentially less transparent quantitative model and a less risk-sensitive but more transparent initial margin schedule for calculating initial margin amounts. At the same time, derivatives market participants should not be allowed to switch between model- and schedule-based margin calculations in an effort to cherry pick the most favourable initial margin terms. Accordingly, the choice between a model- and a schedule-based initial margin calculation should be made consistently over time.

3(ii) The applicable netting agreements used by market participants will need to be effective under the laws of the relevant jurisdictions and supported by periodically updated legal opinions. Supervisory authorities and relevant market participants should consider how those requirements could best be complied with in practice.

3(iii) The BCBS and IOSCO also recognise that national supervisors may wish to alter margin requirements to achieve macroprudential outcomes, such as limiting the build-up of leverage and the expansion of balance sheets. One method for achieving this may be for the relevant authority to impose a macroprudential "add-on" or buffer on top of baseline (or minimum) margin levels. Although no conclusions have been reached on this issue, the BCBS and IOSCO continue to give further consideration to the coordination issues that may arise in this respect.

3(iv) As discussed above, derivatives transactions between covered entities with zero counterparty risk require zero initial margin and may be excluded from the initial margin calculation. As an example, consider a European call option on a single stock. Suppose that one party, the option writer, agrees to sell a fixed number of shares to another party, the option purchaser, at a predetermined price at some specific future date, the contract's expiry, if the option purchaser wishes to do so. Suppose further that the option purchaser makes a payment to the option writer at the outset of the transaction that fully compensates the option writer for the possibility that it will have to sell shares at contract expiry at the predetermined price. In this case, the option writer faces zero counterparty risk while the option purchaser faces counterparty risk. The option writer has received the full value of the option at the outset of the transaction. The option purchaser, on the other hand, faces counterparty risk since the option writer may not be willing or able to sell shares to the option purchaser at the predetermined price at the expiry of the contract. In this case, the option writer would not be obliged to collect any initial margin from the option purchaser and the call option could be excluded from the initial margin calculation. Since the option purchaser faces counterparty risk, the option purchaser must collect initial margin from the option writer in a manner consistent with the requirements of this paper.

# Element 4: Eligible collateral for margin

## Background discussion

4(a) Even in cases where margin is collected in an amount sufficient to fully protect a firm in the event of the default of a derivatives counterparty, the firm may nonetheless be exposed to loss if that margin is not in a form that can be readily liquidated at full value at the time of default, particularly during a period of financial stress.

4(b) Accordingly, the BCBS and IOSCO have considered the types of collateral that should be deemed eligible for use in meeting the margin requirements, evaluating several different approaches. One approach would be to restrict eligible collateral to the most liquid top-quality assets, such as cash and high-quality sovereign debt, on the grounds that doing so would best ensure that the value of collateral held as margin could be fully realised in a period of financial stress. Another approach would be to permit a broader set of eligible collateral, including assets such as liquid equity securities and corporate bonds, and address the potential volatility of such assets through the application of appropriate haircuts to their valuation for margin purposes. Potential advantages of the latter approach would include (i) a reduction of the potential liquidity impact of the margin requirements by permitting firms to use a broader array of assets to meet margin requirements and (ii) better alignment with central clearing practices, in which CCPs frequently accept a broader array of collateral, subject to collateral haircuts. After evaluating each of these alternatives, the BCBS and IOSCO have opted for the second approach (broader eligible collateral).

## Key principle 4

To ensure that assets collected as collateral for initial and variation margin purposes can be liquidated in a reasonable amount of time to generate proceeds that could sufficiently protect collecting entities covered by the requirements from losses on non-centrally cleared derivatives in the event of a counterparty default, these assets should be highly liquid and should, after accounting for an appropriate haircut, be able to hold their value in a time of financial stress. The set of eligible collateral should take into account that assets which are liquid in normal market conditions may rapidly become illiquid in times of financial stress. In addition to having good liquidity, eligible collateral should not be exposed to excessive credit, market and FX risk (including through differences between the currency of the collateral asset and the currency of settlement). To the extent that the value of the collateral is exposed to these risks, appropriately risk-sensitive haircuts should be applied. More importantly, the value of the collateral should not exhibit a significant correlation with the creditworthiness of the counterparty or the value of the underlying non-centrally cleared derivatives portfolio in such a way that would undermine the effectiveness of the protection offered by the margin collected (ie the so-called “wrong way risk”). Accordingly, securities issued by the counterparty or its related entities should not be accepted as collateral. Accepted collateral should also be reasonably diversified.

## Requirement 4

4.1 National supervisors should develop their own list of eligible collateral assets based on the key principle, taking into account the conditions of their own markets. As a guide, examples of the types of eligible collateral that satisfy the key principle would generally include:

- Cash;
- High-quality government and central bank securities;
- High-quality corporate bonds;

- High-quality covered bonds;
- Equities included in major stock indices; and
- Gold.

**The illustrative list above should not be viewed as being exhaustive**. Additional assets and instruments that satisfy the key principle may also serve as eligible collateral. Also, in different jurisdictions, some particular forms of collateral may be more abundant or generally available due to institutional market practices or norms. Eligible collateral can be denominated in any currency in which payment obligations under the non-centrally cleared derivatives may be made, or in highly liquid foreign currencies subject to appropriate haircuts to reflect the inherent FX risk involved.

4.2 Potential methods for determining appropriate haircuts could include either internal or third-party quantitative model-based haircuts or schedule-based haircuts. Each alternative is briefly discussed below.

4.3 As in the case of initial margin models, risk-sensitive quantitative models, both internal or third-party, could be used to establish haircuts provided that the model is approved by supervisors and is subject to appropriate internal governance standards. As in the case of initial margin models, an unregulated derivatives counterparty may use an approved quantitative model. In addition to the points regarding the use of internal models discussed in the context of initial margin, the BCBS and IOSCO also note that eligible collateral may vary across national jurisdictions owing to differences in the availability and liquidity of certain types of collateral. As a result, it may be difficult to establish a standardised set of haircuts that would apply to all types of collateral across all jurisdictions that are consistent with the key principle.

4.4 In addition to haircuts based on quantitative models, as in the case of initial margin, derivatives counterparties should also have the option of using standardised haircuts that would provide transparency and limit procyclical effects. The BCBS and IOSCO have established a standardised schedule of haircuts for the list of assets appearing above. The haircut levels are derived from the standard supervisory haircuts adopted in the Basel Accord's comprehensive approach to collateralised transactions framework, and can be found in Appendix B.[19] In the event that the BCBS chooses to make changes to these haircuts for regulatory capital purposes, the BCBS and IOSCO would expect to adopt these changes in the context of the margin requirements for non-centrally cleared derivatives absent a compelling policy reason not to do so. However, if a regulated entity is subject to an existing standardised haircut-based approach under its required capital regime, the appropriate supervisory authority may permit the use of the same haircuts for initial margin purposes, provided that they are at least as conservative. While haircuts serve a critical risk management function in ensuring that pledged collateral is sufficient to cover margin needs in a time of financial stress, other risk mitigants should also be considered when accepting non-cash collateral. In particular, entities covered by the requirements should ensure that the collateral collected is not overly concentrated in terms of an individual issuer, issuer type and asset type.

4.5 In the event that a dispute arises over the value of eligible collateral, both parties should make all necessary and appropriate efforts, including timely initiation of dispute resolution protocols, to resolve the dispute and exchange any required margin in a timely fashion.

[19] The haircuts in Appendix B are based on the standard supervisory haircuts that appear in paragraph 151, part 2, *Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework*, http://www.bis.org/publ/bcbs128b.pdf).

### Commentary

4(i) Market conditions and asset availability differ across jurisdictions. National supervisors should develop their own list of eligible collateral assets based on the key principle, taking into account the conditions of their own markets and making reference to the list of examples of eligible collateral under the requirement section.

4(ii) Haircut requirements should be transparent and easy to calculate, so as to facilitate payments between counterparties, avoid disputes and reduce overall operational risk. Haircut levels should be risk-based and should be calibrated appropriately to reflect the underlying risks that affect the value of eligible collateral, such as market price volatility, liquidity, credit risk and FX volatility, during both normal and stressed market conditions. Haircuts should be set conservatively to avoid procyclicality. For example, haircuts should be set at a sufficiently high level during "good times" to avoid the need for sharp and sudden increases in times of stress.

4(iii) Some firms may be unable or unwilling to develop internal haircut calculation models that meet regulators' requirements. It may also be desirable to make available a simpler, conservative and transparent approach to calculating haircuts. The BCBS and IOSCO have established a set of standardised haircuts that can be used in lieu of model-based haircuts.

4(iv) Schedule-based haircuts should be stringent enough to give firms an incentive to develop internal models. To prevent firms from selectively applying the standardised tables where this would produce a lower haircut, firms would have to consistently adopt either the standardised tables approach or the internal/third-party models approach for all the collateral assets within the same well defined asset class.

4(v) Collateral that is posted by a counterparty to satisfy margin requirements may, at some point in time before the end of the derivatives contract, be needed by the counterparty for some particular reason or purpose. Alternative collateral may be substituted or exchanged for the collateral that was originally posted provided that both parties agree to the substitution and that the substitution or exchange is made on the terms applicable to their agreement. When collateral is substituted, the alternative collateral must meet all the requirements outlined above. Further, the value of the alternative collateral, after the application of haircuts, must be sufficient to meet the margin requirement.

## Element 5: Treatment of provided initial margin

### Background discussion

5(a) The legal capacity in which initial margin is held or exchanged can have a significant influence on how effective margin is in protecting a firm from loss in the event of the default of a derivatives counterparty. In particular, when two parties to a derivatives transaction exchange initial margin on a net or commingled basis, there can be little or no actual increase in the extent to which either firm is protected from the default of the other. Although one firm has received initial margin as collateral, the firm also now bears the risk of additional loss on the initial margin that it has provided to the counterparty if the counterparty defaults, which may offset some or all of the benefits of initial margin received. The risk would be exacerbated if the counterparty re-hypothecates, re-pledges or re-uses the provided margin, which could result in third parties having legal or beneficial title over the margin, or a merging or pooling of the margin with assets belonging to the others as a result of which the firm's claim to the margin becomes entangled in legal complications, thus delaying or even denying the return of re-hypothecated / re-used assets in the event that the counterparty defaults.

5(b) Under current market practices, the exchange of two-way initial margin in bilateral trades is not universal. Accordingly, requiring the segregation or other protection of initial margin collateral may

create material incremental liquidity demands and trading costs relative to current practices, as (i) firms would be required to divert significantly more liquid assets to provide initial margin to counterparties on a gross, rather than net, basis, and (ii) firms would no longer retain the unlimited ability to use initial margin collected as a source of funding, for re-hypothecation, re-pledge or re-use, or for other discretionary purposes.

5(c) Given the potential for the net treatment of provided margin to undermine the general benefits of the margin requirements, there was broad consensus in the BCBS and IOSCO that the requirements should address these risks by requiring the gross exchange and the segregation or other effective protection of provided initial margin, so as to preserve its capacity to fully offset the risk of loss in the event of the default of a derivatives counterparty.

## Key principle 5

Because the exchange of initial margin on a net basis may be insufficient to protect two market participants with large gross derivatives exposures to each other in the case of one firm's failure, the gross initial margin between such firms should be exchanged. Initial margin collected should be held in such a way as to ensure that (i) the margin collected is immediately available to the collecting party in the event of the counterparty's default, and (ii) the collected margin must be subject to arrangements that protect the posting party to the extent possible under applicable law in the event that the collecting party enters bankruptcy. Jurisdictions are encouraged to review the relevant local laws to ensure that collateral can be sufficiently protected in the event of bankruptcy.

## Requirement 5

5.1 Initial margin should be exchanged on a gross basis and held in a manner consistent with the key principle above.

### Commentary

5(i) There are many different ways to protect provided margin, but each carries its own risk. For example, the use of third-party custodians is generally considered to offer the most robust protection, but there have been cases where access to assets held by third-party custodians has been limited or practically difficult. The level of protection would also be affected by the local bankruptcy regime, and would vary across jurisdictions.

5(ii) The collateral arrangements used will need to be effective under the relevant laws and supported by periodically updated legal opinions.

5(iii) Cash and non-cash collateral collected as variation margin may be re-hypothecated, re-pledged or re-used.

5(iv) Except where re-hypothecated, re-pledged or re-used in accordance with paragraph 5(v), cash and non-cash collateral collected as initial margin should not be re-hypothecated, re-pledged or re-used. A jurisdiction may allow the initial margin collector (initial margin collector) to re-hypothecate, re-pledge or re-use certain initial margin collected from a customer (customer) provided that the strict circumstances provided in 5(v) below are fully adhered to and that the jurisdiction determines that appropriate controls are in place to ensure that such collateral use would only allow a one-time re-hypothecation, re-pledge or re-use in the global financial system; that is, once initial margin collateral has been re-hypothecated, re-pledged or re-used to a third party (third party) in accordance with 5(v), no further re-hypothecation, re-pledging or re-use of such initial margin collateral by the third party is permitted. Moreover, collected collateral must be segregated from the initial margin collector's proprietary assets. In addition, the initial margin collector must give the customer the option to

segregate the collateral that it posts from the assets of all the initial margin collector's other customers and counterparties (ie individual segregation).

5(v) Cash and non-cash collateral collected as initial margin from a customer may be re-hypothecated, re-pledged or re-used (henceforth re-hypothecated) to a third party only for purposes of hedging the initial margin collector's derivatives position arising out of transactions with customers for which initial margin was collected and it must be subject to conditions that protect the customer's rights in the collateral, to the extent permitted by applicable national law. In this context, customers should only include "buy-side" financial firms as well as non-financial entities, but shall not include entities that regularly hold themselves out as making a market in derivatives, routinely quote bid and offer prices on derivative contracts and routinely respond to requests for bid or offer prices on derivative contracts. In any event, the customer's collateral may be re-hypothecated only if the conditions described below are met:

1. The customer, as part of its contractual agreement with the initial margin collector and after disclosure by the initial margin collector of (i) its right not to permit re-hypothecation and (ii) the risks associated with the nature of the customer's claim to the re-hypothecated collateral in the event of the insolvency of the initial margin collector or the third party, gives express consent in writing to the re-hypothecation of its collateral. In addition, the initial margin collector must give the customer the option to individually segregate the collateral that it posts.
2. The initial margin collector is subject to regulation of liquidity risk.
3. Collateral collected as initial margin from the customer is treated as a customer asset, and is segregated from the initial margin collector's proprietary assets until re-hypothecated. Once re-hypothecated, the third party must treat the collateral as a customer asset, and must segregate it from the third party's proprietary assets. Assets returned to the initial margin collector after re-hypothecation must also be treated as customer assets and must be segregated from the initial margin collector's proprietary assets.
4. The collateral of customers that have consented to the re-hypothecation of their collateral must be segregated from that of customers that have not so consented.
5. Where initial margin has been individually segregated, the collateral must only be re-hypothecated for the purpose of hedging the initial margin collector's derivatives position arising out of transactions with the customer in relation to which the collateral was provided.
6. Where initial margin has been individually segregated and subsequently re-hypothecated, the initial margin collector must require the third party similarly to segregate the collateral from the assets of the third party's other customers, counterparties and its proprietary assets.
7. Protection is given to the customer from the risk of loss of initial margin in circumstances where either the initial margin collector or the third party becomes insolvent and where both the initial margin collector and the third party become insolvent.
8. Where the initial margin collector re-hypothecates initial margin, the agreement with the recipient of the collateral (ie the third party) must prohibit the third party from further re-hypothecating the collateral.
9. Where collateral is re-hypothecated, the initial margin collector must notify the customer of that fact. Upon request by the customer and where the customer has opted for individual segregation, the initial margin collector must notify the customer of the amount of cash collateral and the value of non-cash collateral that has been re-hypothecated.
10. Collateral must only be re-hypothecated to, and held by, an entity that is regulated in a jurisdiction that meets all of the specific conditions contained in this section and in which the specific conditions can be enforced by the initial margin collector.

11. The customer and the third party may not be within the same group.

12. The initial margin collector and the third party must keep appropriate records to show that all the above conditions have been met.

5(vi) The level and volume of re-hypothecation should be disclosed to authorities so that they can monitor any resulting risk.

5(vii) In addition, the monitoring group will review the extent to which initial margin collateral is re-hypothecated, which entities are electing to have their initial margin collateral re-hypothecated, which entities have been allowed to re-hypothecate the initial margin collateral that they collect, how jurisdictions and market participants are implementing the above conditions and giving protection to assets re-hypothecated, how re-hypothecation works in practice, whether the above conditions have created level playing field issues, and how reporting on re-hypothecation can be enhanced to formulate recommendations to the BCBS and IOSCO as to whether to continue to permit re-hypothecation of collateral under these conditions, permit re-hypothecation for only a subset of non-centrally cleared derivative products, prohibit re-hypothecation altogether, or whether to otherwise modify the conditions. Finally, the monitoring group will review the definition of customer and consider whether the definition should be revised or new conditions should be added.

## Element 6: Treatment of transactions with affiliates

### Background discussion

6(a) Although current market practices on this point vary, the exchange of initial or variation margin by affiliated parties to a non-centrally cleared derivative is not customary. Accordingly, extending the initial margin requirements to such transactions would likely create additional liquidity demands for firms engaging in such transactions. In addition, the specific legal and regulatory environment in which such transactions are regulated varies considerably across jurisdictions. The specific legal and regulatory frameworks governing inter-affiliate derivatives transactions depend largely on the specific features of the applicable jurisdictions. For example, some jurisdictions require inter-affiliate transactions to be subject to centralised risk management whereas others oblige affiliates to enter into transactions on an arm's length basis. Such transactions may not necessarily be suited to harmonisation as varying legal systems may be driven by the specifics of each jurisdiction and its legal framework.

### Key principle 6

Transactions between a firm and its affiliates should be subject to appropriate regulation in a manner consistent with each jurisdiction's legal and regulatory framework.

### Requirement 6

6.1 Local supervisors should review their own legal frameworks and market conditions and put in place initial and variation margin requirements as appropriate.

# Element 7: Interaction of national regimes in cross-border transactions

## Background discussion

7(a) The existing structure of markets for non-centrally cleared derivatives is global in scope. Key derivatives market participants are often engaged in derivatives activity through a variety of legal entities in different national jurisdictions and frequently deal with counterparties on a cross-border basis. Given the global nature of these markets, and as noted in the Executive Summary, the effectiveness of margin requirements could be undermined if the requirements were not consistent internationally.

7(b) Accordingly, the BCBS and IOSCO have considered, as part of the framework for margin requirements, specific approaches to ensuring that implementation of the margin requirements at a national jurisdiction-level is appropriately interactive – that is, that each national jurisdiction's rule is territorially complementary such that (i) regulatory arbitrage opportunities are limited, (ii) a level playing field is maintained, (iii) there is no application of duplicative or conflicting margin requirements to the same transaction or activity, and (iv) there is substantial certainty as to which national jurisdiction's rules apply. When a transaction is subject to two sets of rules (duplicative requirements), the home and the host regulators should endeavour to (1) harmonise the rules to the extent possible or (2) apply only one set of rules, by recognising the equivalence and comparability of their respective rules.

## Key principle 7

Regulatory regimes should interact so as to result in sufficiently consistent and non-duplicative regulatory margin requirements for non-centrally cleared derivatives across jurisdictions.

## Requirement 7

7.1 The margin requirements in a jurisdiction may be applied to legal entities established in that local jurisdiction, which would include locally established subsidiaries of foreign entities, in relation to the initial and variation margins that they collect. Home-country supervisors may permit a covered entity to comply with the margin requirements of a host-country margin regime with respect to its derivatives activities, provided that the home-country supervisor considers the host-country margin regime to be consistent with the margin requirements described in this framework. A branch is part of the same legal entity as the headquarters; it may be subject to either the margin requirements of the jurisdiction where the headquarters is established or the requirements of the host country.

## Commentary

7(i) It is recommended that home and host country supervisors closely cooperate to identify conflicts and inconsistencies between regimes with respect to cross-border application of margin requirements. It is further recommended that authorities coordinate their approaches via multilateral or bilateral channels to reduce such issues, to the extent possible.

7(ii) In addition to margin requirements, a number of other aspects of the regulation of OTC derivatives have cross-border implications. As approaches to these issues evolve, the BCBS and IOSCO may consider modifications to the requirements set out above, with a view to ensuring consistency in the treatment of cross-border transactions across all aspects of OTC derivatives regulation.

# Element 8: Phase-in of requirements

## Background discussion

8(a) Margin requirements on non-centrally cleared derivatives will represent a significant policy change for most market participants. Initial margin requirements, in particular, are not currently applied to a large number of transactions across many market participants. Such requirements will require significant operational enhancements and will also require significant amounts of collateral for which liquidity planning will be required. While the changes that will be required as a result of universal margin requirements are important for limiting systemic risks, these changes must be managed effectively so as to allow for an appropriate transition and not create unduly large transition costs. Moreover, the benefits gained by managing the transition to the new requirements must be weighed against systemic risks that are left unmitigated during any transition period.

8(b) In addition, the requirements could impose some unnecessary operational costs on smaller entities that pose no significant systemic risk to the system and would not be expected to be bound by the initial margin requirements, in particular, in light of the provided threshold amount of €50 million.

8(c) Also, these requirements are new and interact with a large number of existing regulatory initiatives that, over time, should be reviewed and harmonised as appropriate. Accordingly, it is important that the appropriateness, efficacy and relationship of these requirements with other related requirements be monitored and evaluated on an ongoing basis.

## Key principle 8

The requirements described in this paper should be phased in so that the systemic risk reductions and incentive benefits are appropriately balanced against the liquidity, operational and transition costs associated with implementing the requirements. In addition, the requirements should be regularly reviewed to evaluate their efficacy, soundness and relationship to other existing and related regulatory initiatives, and to ensure harmonisation across jurisdictions.

## Requirement 8

8.1 The requirement to exchange variation margin will become effective on 1 December 2015. The requirement to exchange variation margin between covered entities only applies to new contracts entered into after 1 December 2015. Exchange of variation margin on other contracts is subject to bilateral agreement.

8.2 The requirement to exchange two-way initial margin with a threshold of up to €50 million will be staged as follows.

8.3 From 1 December 2015 to 30 November 2016, any covered entity belonging to a group whose aggregate month-end average notional amount of non-centrally cleared derivatives for June, July and August of 2015 exceeds €3.0 trillion will be subject to the requirements when transacting with another covered entity (provided that it also meets that condition).

8.4 From 1 December 2016 to 30 November 2017, any covered entity belonging to a group whose aggregate month-end average notional amount of non-centrally cleared derivatives for June, July and August of 2016 exceeds €2.25 trillion will be subject to the requirements when transacting with another covered entity (provided that it also meets that condition).

8.5 From 1 December 2017 to 30 November 2018, any covered entity belonging to a group whose aggregate month-end average notional amount of non-centrally cleared derivatives for June, July and

August of 2017 exceeds €1.5 trillion will be subject to the requirements when transacting with another covered entity (provided that it also meets that condition).

8.6 From 1 December 2018 to 30 November 2019, any covered entity belonging to a group whose aggregate month-end average notional amount of non-centrally cleared derivatives for June, July and August of 2018 exceeds €0.75 trillion will be subject to the requirements when transacting with another covered entity (provided that it also meets that condition).

8.7 On a permanent basis (ie from 1 December 2019), any covered entity belonging to a group whose aggregate month-end average notional amount of non-centrally cleared derivatives for June, July and August of the year exceeds €8 billion will be subject to the requirements described in this paper during the one-year period from 1 December of that year to 30 November of the following year when transacting with another covered entity (provided that it also meets that condition). Any covered entity belonging to a group whose aggregate month-end average notional amount of non-centrally cleared derivatives for June, July and August of the year is less than €8 billion will not be subject to the initial margin requirements described in this paper.

8.8 For the purposes of calculating the group aggregate month-end average notional amount for determining whether a covered entity will be subject to the initial margin requirements described in this paper, all of the group's non-centrally cleared derivatives, including physically settled FX forwards and swaps, should be included.

8.9 Initial margin requirements will apply to all new contracts entered into during the periods described above. Applying the initial margin requirements to existing derivatives contracts is not required.[20]

8.10 Global regulators will work together to ensure that there is sufficient transparency regarding which entities are and are not subject to the initial margin requirements during the phase-in period.

[20] Genuine amendments to existing derivatives contracts do not qualify as a new derivatives contract. Any amendment that is intended to extend an existing derivatives contract for the purpose of avoiding margin requirements will be considered a new derivatives contract.

# Appendix A

## Standardised initial margin schedule

| Asset class | Initial margin requirement (% of notional exposure) |
|---|---|
| Credit: 0–2 year duration | 2 |
| Credit: 2–5 year duration | 5 |
| Credit 5+ year duration | 10 |
| Commodity | 15 |
| Equity | 15 |
| Foreign exchange | 6 |
| Interest rate: 0–2 year duration | 1 |
| Interest rate: 2–5 year duration | 2 |
| Interest rate: 5+ year duration | 4 |
| Other | 15 |

# Appendix B

## Standardised haircut schedule

| Asset class | Haircut (% of market value) |
|---|---|
| Cash in same currency | 0 |
| High-quality government and central bank securities: residual maturity less than one year | 0.5 |
| High-quality government and central bank securities: residual maturity between one and five years | 2 |
| High-quality government and central bank securities: residual maturity greater than five years | 4 |
| High-quality corporate\covered bonds: residual maturity less than one year | 1 |
| High-quality corporate\covered bonds: residual maturity greater than one year and less than five years | 4 |
| High-quality corporate\covered bonds: residual maturity greater than five years | 8 |
| Equities included in major stock indices | 15 |
| Gold | 15 |
| Additional (additive) haircut on asset in which the currency of the derivatives obligation differs from that of the collateral asset | 8 |